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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,508	12/05/2003	Lavinia C. Popescu	02.36US	9085

23487 7590 02/08/2006  
THE ESTEE LAUDER COS, INC  
125 PINELAWN ROAD  
MELVILLE, NY 11747

EXAMINER

KOSSON, ROSANNE

ART UNIT PAPER NUMBER

1653

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/728,508	<b>Applicant(s)</b> POPESCU ET AL.	
	<b>Examiner</b> Rosanne Kosson	<b>Art Unit</b> 1653	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED on January 9, 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: \_\_\_\_\_.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see below. Remarks only were submitted.  
 12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). 20060109  
 13. ☐ Other: \_\_\_\_\_.

Applicants' remarks are not probative of a case for non-obviousness of the claimed invention. The claimed invention is a method of retaining curl in a keratinous material, hair in particular, by applying transglutaminase to it. The question is whether or not one of ordinary skill in the art, in view of the prior art, would expect a keratinous material (hair) to retain its curl better when treated with transglutaminase than when untreated (claims 1-9) or to have enhanced curl, or for curl to be imparted, when treated with transglutaminase (claims 10-18). Unexpected results are not an issue in the instant case. Is there retained/enhanced curl retention or imparted curl, or is there not?

As previously discussed, Richardson et al., Green et al. and Kanebo Ltd. disclose applying a composition comprising transglutaminase to the hair for cosmetic purposes and that transglutaminase cross-links the protein of hair, keratin, by forming bonds between glutamine and lysine residues. Dane discloses what most people know about perms. The hair is first curled up on rollers to create the curly shape, and then a cross-linking agent is applied that causes the formation of bonds between cysteine residues in the keratin strands. These new bonds result in the retention of the new curly shape. The perming process imparts curl to hair. One of ordinary skill in the art would have recognized that the curls are retained because of the new pattern of cross-links in the hair, not because cysteine residues have been reacted. One of ordinary skill in the art would have been motivated to use the transglutaminase cross-linking method of Richardson et al., Green et al. and Kanebo in the perming method of Dane because these three references teach that transglutaminase is an effective reagent for cross-linking hair.

In their arguments against the applied references, Applicants assert that Richardson et al. teach that transglutaminase reacts only with glutamine residues in the hair and

alkylamine groups in the compositions that are applied to hair and that the reaction between glutamine and lysine residues in the hair is prevented. But, Applicants have not indicated where the reference discloses this point. Applicants note, at the top of col. 11, that an effective amount of transglutaminase is employed to cross-link the active ingredient to glutamine residues in hair. But, the presence of an effective amount of enzyme would be expected, and this sentence does not mean that the transglutaminase reaction is controlled so that the reaction of the enzyme with lysine residues in the hair is prevented. As previously discussed, the transglutaminase reaction is disclosed at the top of col. 1.

Applicants assert that Green et al. teach that corneocyte proteins are cross-linked to skin cells by transglutaminase and that only different proteins can be cross-linked by transglutaminase. Amino acid residues in the same protein cannot be cross-linked. Also, Green et al. do not disclose that transglutaminase can cross-link proteins in hair. In reply, Applicants have not indicated where in the reference these disclosures are found. Green et al. do not teach that hair can be bound to skin by the reaction of transglutaminase. As discussed previously, Green et al. disclose cosmetic compositions for skin, hair or nails that form a protective layer on the skin, hair or nails. The protective layer is the layer of protein that is cross-linked by transglutaminase (see the Summary section, cols. 1-2).

Regarding Kanebo Ltd., which discloses that treatment with transglutaminase imparts springiness to hair, Applicants assert that springiness can have nothing to do with curl and they have provided different meanings. These other meanings are also properties of curls, although these meanings are not recited in the instant claims. A curl is springy (and flexible and bouncy). Its length is variable, like a spring, as it can be pulled out, and it returns to its former shape.

Applicants assert that Dane does not render the claimed invention obvious, because Dane does not disclose the transglutaminase reaction and because one cannot assume that every cross-linking of amino acids produces identical results. In reply, Dane is discussed above and has been previously discussed. The reference certainly does disclose cross-linking to maintain shape. It is Applicants interpretation of the rejection, not the rejection of record, that every cross-linking reaction produces identical results. One of ordinary skill in the art would have expected that hair that has been curled, or that is curly, and that has been cross-linked by exposed to a cross-linking agent would retain the curly shape. One of ordinary skill in the art would have expected retention of the curly shape because of the additional bonds formed between pairs of amino acids. One of ordinary skill in the art would not have expected that only cross-linking by agents that produce disulfide bonds can produce retention of curl.

Regarding the Voet et al. reference, it discusses the three-dimensional structure of proteins. But, with respect to the process of perming hair, it discusses what Dane discloses.

Regarding claims 5 and 14, which recite that the keratinous material is eyelashes, Applicants assert that these claims were forgotten in the previous Office action. These claims were clearly addressed on pp. 6-7 of the previous Office action.

In view of the foregoing, the rejection of record is maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosanne Kosson whose telephone number is 571-272-

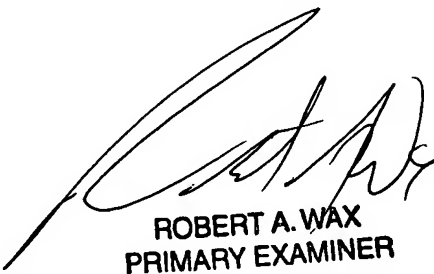
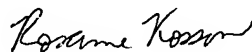
2923. The examiner can normally be reached on Monday-Friday, 8:30-6:00, with alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber, can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rosanne Kosson  
Examiner, Art Unit 1653

rk/2006-02-01S



ROBERT A. WAX  
PRIMARY EXAMINER